

What is claimed is:

1. A spring brake actuator (6) for use in conjunction with a service brake actuator (3) having a rotational operative shaft (3'), the spring brake actuator (6) having an actuator shaft (11; 11A) in rotative communication with the service brake actuator shaft (3), characterized by

 a clock spring or spiral spring (14; 14A), attached at its outer end to a spring brake actuator housing (10; 10A) and mechanically charged at a rotation of the actuator shaft (11; 11A) in a brake release direction,

 an electric coil (15; 15A) for keeping - when electrically energized - the clock spring in its charged condition, and

 transfer means (12, 24, 18-22; 12A, 18A, 30) for transferring the rotative energy of the clock spring to the actuator shaft in a brake applying direction, when the coil is deenergized, but allowing free rotation of the shaft in either direction, when the coil is energized.

2. A spring brake actuator according to claim 1, characterized in that the transfer means include

 a cylindrical hub (12), which is rotationally arranged in relation to the shaft (11) and to which the inner end of the clock spring (14) is attached,

 a locking spring (24) connecting the hub (12) with the shaft (11), and
 control means (18-22) for controlling the operational condition of the locking spring in relation to the hub by means of the coil (15).

3. A spring brake actuator according to claim 2, characterized in that the control means (18-22) include in axial order

 a brake disc (18) in proximity to the coil (15) and in splines engagement (at 19) with the hub (12), and

 a control disc (22) in internal engagement with the locking spring (24).

4. A spring brake actuator according to any of the preceding claims, characterized in that the locking spring (24) is connected to the hub (12) by means of a sleeve (23) having a certain circumferential play in relation to the hub.
5. A spring brake actuator according to claim 4, characterized in that the sleeve (23) has a pin (23') engaging a circumferential groove in the hub (12).
6. A spring brake actuator according to claim 1, characterized in that the transfer means include
 - a cylindrical hub (12A), which is rotationally arranged in relation to the shaft (11A) and to which the inner end of the clock spring (14A) is attached,
 - an axially movable brake disc (18A) in splines engagement with the hub (12A), and
 - a tooth clutch (30) between the actuator shaft (11A) and the brake disc, the clutch being engaged when the coil (15A) is not energized.
7. A spring brake actuator according to claim 6, characterized in that the tooth clutch (30) is spring biassed into engagement.